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ABSTRACT

The present study used a number of commonly observed sex-typed objects and activities as stimuli in an attempt to assess androgyny in primary school children. As a test of concurrent validity, children's preference scores were correlated with a parent-report measure of sex-typing. Three methods of sex role classification (between-sex median split, within-sex median split, and absolute midpoint split) were also examined in an effort to determine their similarities and differences using the same data set. Participants were 111 children in kindergarten through second grade and their parents. Child and parent measures showed strong sex differences in the types of stimuli preferred. Significant correlations were found between the parent and child measures for girls, but not for boys. The absolute midpoint method of sex-role classification placed the majority of boys in the masculine category and girls in the feminine category; nine percent of boys and 18 percent of girls were classified as androgynous. This method of classification yielded results similar to the more commonly used between-sex median split procedure but differed sharply from the within-sex median split method, which yielded a more even distribution of subjects. Results are discussed with respect to a number of methodological issues in the measurement of androgyny in children. (Thirty references and 7 tables are provided.) (RH)

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Assessment of Androgyny in Children

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Abstract

Androgyny as a sex-role type has been studied extensively in adults but hardly at all in children. In the present study, children in Grades K-2 (n = 111) were administered a sex-role preference test in such a way that masculine and feminine scores could be derived independently. As a test of concurrent validity, the childrens' masculine and feminine preference scores were correlated with a parent-report measure of sex-typing. Both the child and parent measures showed strong sex differences in the types of stimuli preferred. Significant correlations were found between the parent and child measures for girls, but not for boys. Based on their masculine and feminine scores, children were classifed as androgynous, masculine, feminine, or undifferentiated. The "absolute midpoint" method of sex-role classification placed the majority of boys in the masculine category (84%) and the majority of girls in the feminine category (79%); 9% of the boys and 18% of the girls were classified as androgynous. This method of classification yielded results similar to the more commonly used "between-sex" median split procedure, but differed sharply from the "within-sex" median split method, which yielded a more even distribution of subjects across the four sex-role types. The results were discussed with respect to a number of methodological issues in the measurement of androgyny in children.

Assessment of Androgyny in Children

Androgyny as a sex-role type has been studied extensively in adults but hardly at all in children, despite the presence of a growing literature advocating the merits of an "androgynous" approach to child rearing (e.g., Chasen, 1977; Flake-Hobson, Skeen, & Robinson, 1980; Gilbert, 1984). Most of the studies on androgyny in children have simply borrowed from research on adults sex-typed personality traits designed to measure the androgyny construct (e.g., Hall & Halberstadt, 1980; Kurdek & Siesky, 1980; Massad, Patterson, & O'Brien, 1980; Moore, 1985; Oleshansky, 1981; Simms, Davis, Foushee, Holahan, Spence, & Helmreich, 1978; Stericker & Kurdek, 1982). By and large, these studies and others (e.g., Fagot, 1978) have not found strong support for the hypothesis that androgynous children will display superior psychosocial competence as compared to their conventionally sex-typed counterparts: in fact, some of the studies have found little or no relation between sex role classification and measures of psychosocial functioning. This has led Hall and Halberstadt (1980) to conclude that "androgyny among children may not be as useful a concept as researchers might have originally hoped" (p. 280).

From the standpoint of measurement, at least four problems are presented by this small literature. First, it may be a dubious enterprise to employ rather abstract sex-typed personality traits in the evaluation of young children. Huston (1985), for example, suggested that such traits may not be the

best way to measure patterns of sex-typing in early childhood. This point has particular merit, given the observation that children younger than 7-8 cannot attribute stable dispositions, or traits, to self or others (see, e.g., Barenboim, 1981; Rholes & Rubie, 1984). Second, some of the existing measures of childhood androgyny are psychometrically inadequate. For example, the internal consistency of the Children's Personal Attributes Questionnaire (e.g., Hall & Halberstadt, 1980) seems rather low, well below recommended cutoffs (see Nunnally, 1978, pp. 245-246) and other studies do not even report alpha reliability levels (e.g., Emilhovich & Gaier, 1983; Massad et al., 1980); accordingly, the validity of the putative indices of masculinity and femininity may be questioned. Third, some researchers have not found or tested for sex differences on measures of masculinity or femininity (e.g., Hall & Halberstadt, 1980, Study 1; Huston, Carpenter, Atwater, & Johnson, 1986), which would seem to be an essential requirement for establishing the validity of a sex-role identity scale (see, e.g., Bem, 1974). Lastly, the methods used to classify subjects into sex-role "types" require reexamination. Typically, a between-sex or a within-sex median split procedure has been conducted. Most of the studies have classified relatively high percentages of children classified in the androgynous, same-sex, and undifferentiated categories, and a smaller percentage in the cross-sex category (e.g., Hall & Halberstadt, 1980; Massad et al., 1980; Oleshansky, 1981; Stericker & Kurdek, 1982). This

last finding is not surprising, but the rather high percentages of "undifferentiated" children is. This, of course, is a relative classification, but its psychological meaning is not clear. Depending on the data set, an undifferentiated child could, for example, have a same-sex score that is actually higher than the midpoint of the scale and a cross-sex score that is lower than the midpoint. Although the score of such a child may be less differentiated than the scores of other children, it is questionable whether the child should therefore be described as undifferentiated.

Wolf's (1980) unpublished dissertation avoided many of these methodological pitfalls. In a series of five experiments with both children and adults, Wolf employed a nonverbal measure of androgyny using pictorial representations of putatively sex-typed stimuli. In the fifth experiment, he reported that both 5- and 12-year-old girls had higher scores on the Feminine scale than on the Masculine scale and that 12-year-old boys showed the opposite pattern, but 5-year-old boys did not. In fact, the 5-year-old boys had a significantly higher score on the Feminine scale than on the Masculine scale. Although this last finding is counterintuitive, Wolf's (1980) study demonstrated the feasibility of measuring androgyny in children in a psychometrically sound manner.

The present study used a number of commonly observed sex-typed objects and activities as stimuli in an attempt to assess androgyny in children, and to determine whether this

particular mode of measurement had any concurrent validity. In addition, the present study simultaneously examined three methods of sex role classification (between-sex median split, within-sex median split, and absolute midpoint split) to determine their similarities and differences using the same data set.

METHOD

Subjects

The participants were 111 children (54 boys, 57 girls) in Grades K-2 and their parents. The children attended one of two elementary public schools in a Toronto suburb. Subjects were recruited by distributing permission forms to all of the parents of the students in the three grades (n = 208). Reminder-letters were subsequently distributed to 60 parents who had failed to return the permission form within three weeks. In total, 53% of the parents gave permission for their child to participate, 24% did not give permission, and 23% did not reply.

Materials and Procedure

The child measure of sex-typing consisted of 30 pictures or words of putatively masculine (n = 12), feminine (n = 12), and neutral (n = 6) stimuli, including toys, activities, peers, and adult occupations. The stimuli were selected from previous research (Zucker, 1977) and other literature. Each stimulus was mounted on a piece of white cardboard. The entire array of stimuli was ordered in one of two quasi-random ways (inverses of each other), with the condition that no more than three masculine or feminine stimuli, or two neutral stimuli, appeared in

succession. Half the subjects were exposed to order one; the other half were exposed to order two.

The children were tested individually by a female experimenter in a quiet room in the school. The children were told that they were going to be shown "a bunch of pictures" and their job was to indicate how much they liked what was in the picture. The children were then shown a bar graph of five vertical lines that varied linearly in height. It was explained that the bar graph would be used to indicate how much they liked what was in the picture, or how much they wanted to do what was in the picture. Appropriate descriptors were provided for each bar. It was explained that there were no "right or wrong" answers and that the experimenter only wanted to know "what you think about what's in the picture."

The children provided preference ratings by touching one of the bars with a pointer. For coding purposes, a rating of 5 indicated the most positive response whereas a rating of 1 indicated the least positive response. At the task's completion, the children were thanked and asked not to tell their classmates what they did and what the pictures were about.

The parent measure of sex-typing consisted of 12 statements that described a variety of behaviors similar in content to some of the stimuli used in the child's task. Each item was rated on a 5-point scale. These items were taken from a questionnaire developed by Elizabeth and Green (1984) and revised by Elizabeth, Meyer-Bahlburg, Janal, Ehrhardt, and Green (1984). Factor

analysis by Elizabeth et al. (1984) showed these items to form one very strong factor accounting for 91.5% of the common variance. Each individual item and a summary score discriminated the behavior of boys from girls (total n = 702), who consisted either of dizygotic and monozygotic same-sex twins or opposite-sex twins (see Elizabeth & Green, 1984).

The parent questionnaire was mailed to the family home. Both the child's mother and father were asked to complete the questionnaire, and to do so independently of each other. A stamped return envelope was provided. If the forms were not returned within three weeks, the parents were contacted by telephone. At least one questionnaire was returned by 98/111 families, yielding a compliance rate of 88%.

RESULTS

Child Measure of Sex-typing

The first analysis determined whether the stimuli were, in fact, masculine, feminine, or neutral, as judged by the presence or absence of sex differences in preference ratings. Each item was subjected to a 2 (sex-of-child) x 3 (grade) analysis of variance (ANOVA). It can be seen in Table I that 10 of the 12 putatively masculine stimuli achieved statistical significance in the expected direction. The two stimuli that did not achieve significance were the "male peers" (a realistic colored illustration of three boys playing together) and a male Cabbage Patch doll; the latter stimulus was statistically significant in the female-preferred direction.

Of the 12 putatively feminine stimuli, 11 were significant in the expected direction; only the printed word "telephone operator" did not achieve significance in the predicted direction.

Of the six putatively neutral stimuli, three did not show a sex-of-child effect. Of the remaining three stimuli, radio and telephone were both female-preferred and a school bus was male-preferred.

For further analyses, the Masculine scale consisted of the 10 putatively masculine stimuli that were sex-preferred. The Feminine scale consisted of the 11 putatively feminine stimuli that were sex-preferred and the male Cabbage Patch doll. It was decided for two reasons not to include in these scales the putatively neutral stimuli that were sex-preferred: first, previous research had not identified them as sex-typed; second, the F values were among the smallest that were obtained. Cronbach's coefficient alphas for the Masculine and Feminine scales were .87 and .91, respectively.

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insert Table 1 about here

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A summary Masculine and Feminine score for each child was expressed as the mean rating of the masculine and feminine stimuli, respectively. For subsequent analyses, these scores were expressed as same-sex and cross-sex in nature. Preliminary analysis showed no sex-of-child effects, but a 3 (grade) X 2

(stimulus type: same-sex vs. cross-sex) ANOVA revealed a grade x stimulus type interaction, $F(2,107) = 8.29$, $p < .001$ (Table II). Simple effects analysis (Kirk, 1968) showed that children in all three grades showed a stronger preference for same-sex than for cross-sex stimuli (all ps < .01). In addition, there was a simple main effect for the cross-sex stimuli, $F(2,214) = 4.41$, $p < .05$. Duncan's multiple range test for unequal ns (Kramer, 1956) showed that children in Grades 1 and 2 had lower cross-sex preference scores than the children in Kindergarten (both ps < .01).

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insert Table II about here

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Parent Measure of Sex-typing

Because more mothers than fathers returned questionnaires, the maternal data were used for the primary analyses. Each item was first tested for sex differences. It can be seen in Table III that each item significantly differentiated the behavior of the boys from the girls in the expected direction. Similar results were found for those children whose fathers completed the questionnaire. A summary score was thus derived for further analyses (absolute range, 12-60). For those children who had both parents complete the questionnaire, interparent agreement was of moderate magnitude (boys, $r[30] = .52$, $p < .005$; girls, $r[37] = .56$, $p < .001$).

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insert Table III about here

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The correspondence between the child and parent measures was evaluated by correlational analysis. It can be seen in Table IV that there were moderate correlations between the parent and child measures for girls, but not for boys. Thus, there was only some evidence for the concurrent validity of the child measure.

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insert Table IV about here

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Sex Role Classification

Classification of subjects into four sex-role types (Androgynous, Same-sex, Cross-sex, Undifferentiated) was based on the Masculine and Feminine summary scales on the measure administered to the children. As noted earlier, different methods have been employed to classify subjects. Table V presents the distribution of subjects in the four categories as a function of three methods of sex-role classification: a between-sex median split, a within-sex median split, and the absolute midpoint (above vs. below) of the response scale.

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insert Table V about here

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It can be seen that the between-sex median split and absolute midpoint methods classified the majority of subjects in

the Same-sex category (85.4% and 80.9%, respectively). In contrast, the within-sex median split procedure resulted in a more equal distribution of subjects across the four categories. Note that this last method of classification could result in a "low masculine" boy having a mean rating as high as 4.19; similarly, a "low feminine" girl could have a mean rating as high as 4.40. Conversely, a "high feminine" boy could have a mean rating as low as 2.26 whereas a "high masculine" girl could have a mean rating as low as 2.41 (see Table V).

To demonstrate this point further, Table VI presents the mean Masculine and Feminine summary scale scores for the child measure of sex-typing as a function of the within-sex median split classifications. Sex-of-child did not affect these results, so the data were collapsed across sex. A 4 (sex-role category: androgynous, same-sex, cross-sex, and undifferentiated) x 2 (stimulus type: same-sex vs. cross-sex) ANOVA on the summary scale scores revealed a sex-role category x stimulus type interaction, $F(3,106) = 57.24$, $p < .001$. Simple effects analysis showed that there was a significant preference for same-sex than for cross-sex stimuli within each of the four sex-role categories (all $ps < .001$); thus, even cross-sex-typed subjects had higher same-sex than cross-sex preference scores using this method of classification.

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insert Table VI about here

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To conclude these analyses, Table VII shows the distribution of maternal ratings of sex-typing and the child's grade level across the four sex-role types for the within-sex median split procedure. Preliminary analysis showed that sex-of-child did not interact with sex-role classification, so the data were collapsed across sex. A one-way ANOVA for sex-role classification approached significance for both the maternal sex-typing score ($F[3,93] = 2.09$, $p = .107$) and the child's grade level ($F[3,106] = 2.57$, $p = .057$). Duncan's multiple range test showed that the cross-sex-typed subjects had the lowest sex-typical maternal score and were younger (judged by grade level) as compared to each of the other three groups, all of whom did not differ from one another (all $ps < .05$).

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insert Table VII about here

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Because the between-sex and absolute mid-point methods yielded almost identical distributions, similar analyses to those noted above were conducted only for the latter method. Because the absolute midpoint method yielded such a high percentage of same-sex-typed subjects, comparisons were made between this group and the other three groups combined, with the data again collapsed across sex-of-child. A t-test showed that the same-sex-typed subjects had a higher maternal rating of sex-typing (mean, 47.4) than did the other groups of subjects (mean, 43.6), $t(95) = 3.24$, $p < .002$. Same-sex-typed subjects

were also older, as judged by grade level (mean, 2.15), than were the other groups of subjects (mean, 1.42), $t(108) = 3.87$, $p < .001$.

DISCUSSION

The present study attempted to assess the construct of androgyny in children by employing a preference measure of sex-typing that permitted, in principle, the classification of subjects as androgynous (attraction to both masculine and feminine stimuli), same-sex-typed, cross-sex-typed, and undifferentiated (attraction to neither masculine or feminine stimuli). The stimuli differed from those used in a number of previous studies in that they included a variety of toys and activities familiar to children rather than derivatives of adult sex-typed personality traits.

There was strong evidence for sex differences in the types of stimuli preferred, as would be expected from the child literature on sex-typing (Huston, 1985). Unlike some of the previously used instruments to assess androgyny in children, the present scale showed strong internal consistency, thus providing additional evidence for the validity of the measure.

The concurrent validity of the child measure of sex-typing was evaluated by correlating the masculine and feminine scale scores with a parent-report measure of sex-typing that has been shown to strongly differentiate the behavior of boys from that of girls (Elizabeth & Green, 1984; Elizabeth et al., 1984). The results from the present study also found strong sex-of-child differences in parent report of sex-typed behavior; however,

concurrent validity between the child and parent measures was demonstrated only for the girls--there was no relation between the child and parent measures of sex-typing for the boys.

Given that there was reasonable interparent agreement for both boys and girls, it is important to try to account for the discrepancy. Differential restriction in variance would be one possible explanation. It can be seen in Table I that there was more variance in the girls' data for the individual masculine items, but the converse was true for the feminine items; however, there was not a significant sex difference in variance for the masculine summary scale score. The difference was significant for the feminine summary scale score ($p < .05$), but not in the direction one would expect. There was also no significant sex difference in the variances for the parent summary score. Thus, differential variances do not appear to account for the better success in demonstrating correspondence between the parent and child measures for girls.

Surprisingly, there have been relatively few studies in the normative literature that have examined the correspondence between a parent's assessment of a child's sex-typed behavior and the child's actual behavior. Schau, Kahn, Diepold, and Cherry (1980) found that mothers of preschoolers accurately predicted their daughters' amount of actual feminine sex-typed play, but not the amount of masculine or neutral toy play; prediction of sons' actual masculine and neutral play was nonsignificant, and prediction of feminine play was significantly inaccurate.

Fathers had no accurate predictions of their childrens' sex-typed and neutral play. Clearly, more work is needed to understand why parental ratings of sex-typed behavior are so weakly correlated with actual behavior, particularly for boys.

Based on the child preference measure, children were classified into sex role "types" using three different methods of classification, two of which have been previously employed in the literature. The within-sex median split yielded a more uniform distribution of subjects across the four sex role types than did the between-sex median split and absolute midpoint methods, both of which yielded a preponderance of subjects classified as same-sex-typed. It should be realized that the two median split procedures differ in the degree to which they are dependent upon the actual distribution of scores. Almost by definition, the within-sex median split procedure will generate relatively equal numbers of subjects across the four categories, unless the distribution of scores is markedly nonnormal in shape for either the Masculine or Feminine scales. Classification of subjects using the between-sex median split procedure is, however, more directly affected by the degree of difference between the sexes on the measure of sex-typing. In the present study, the difference was large; thus, the rather high percentage of same-sex-typed subjects. In contrast, other studies using the between-sex median split appear to have found rather small sex differences, if at all, on the Masculine and Feminine scales and, as a result, had a more variable distribution of subjects across

sex role types (see, e.g., Hall & Halberstadt, 1980, Study 1; Stericker & Kurdek, 1982).

A less biased method of classification, therefore, may be one that utilizes the absolute midpoint of the response scale. This method rests on the assumption that subjects who score above vs. below the relatively indifferent midpoint are displaying meaningful differences in preference. The main limitation of such a procedure is that a particular subject population may show a response bias (e.g., choosing relatively high points on the scale). This did not, however, seem to occur in the present study, given the strong sex differences in responses to particular stimuli. In any case, this method of classification yielded a very similar distribution of subjects as the between-sex median split procedure, probably because of the strong sex differences in preference noted earlier.

Because the within-sex median split procedure yields such a uniform distribution of sex role types, it would appear to be the ideal method for examining individual differences. From a validity standpoint, however, one might question the meaning of obtaining such a large number of cross-sex-typed and undifferentiated subjects. Based on common sense, it is difficult to imagine that this reflects the true nature of things in a sex-typed culture. The data from the present study showed, in fact, that even the cross-sex-typed and undifferentiated subjects had significantly higher same-sex scores than cross-sex scores on the child measure of sex-typing (Table VI), which would

seriously question the merit in labeling the subjects in this way. Again, however, this points to the inherent methodological limitation that a within-sex median split procedure imposes on a data set.

When the within-sex median split classifications were validated against maternal sex-typing score and grade level, the only difference that emerged was that the cross-sex-typed subjects tended to be rated as less conventionally sex-typed and were younger than the other three groups. This is not strong evidence for the validity of sex role types, although it is of interest to note that of the four groups, the cross-sex-typed subjects had the weakest differentiation in their same-sex and cross-sex preference scores (see Table VI). This could, therefore, explain why their mother's perceived them as being the least sex-typed; that these subjects were the youngest may also be a factor in their less extreme sex-typed scores, although it should be noted that age (as defined by grade level) did not appear to strongly influence the child and parent measures for the sample as a whole.

That young children exhibit rather extreme patterns of sex-typed preferences has been shown repeatedly in normative studies. Yet, at least within Western culture, the androgyne as a new ideal personality type has influenced many social scientists and educators to advocate the merits of androgynous child-rearing (see Baumrind, 1982). The evidence is scant, however, that children have become any less sex-typed in an

enduring way as a result of this putative influence. In fact, some theorists would suggest that young children are impervious to such modes of influence (see, e.g., Katz, 1986; Robinson & Green, 1981). Although the present study did not directly address this theoretical point, the more valid methods of sex role classification clearly pointed to a paucity of androgynous children, and a preponderance of same-sex-typed children.

Perhaps one of the problems in conceptualizing the androgyny construct as it pertains to children has been the failure to specify more carefully the content domains to which it might best apply. For example, it is easier to imagine a parent promoting both nurturance and assertiveness in a girl than in promoting fantasy play as a "mother" one day and as a "father" the next (two exemplars of behavioral androgyny). It is possible that some child sex-typed behaviors are seen by adults as more closely tied to gender identity, the child's basic sense of self as a male or a female, than to gender role, which is viewed as more arbitrary in nature, and only in this latter domain is greater flexibility desired. Given that the term androgyny has been used in so many different ways, future research might try to delineate more clearly its behavioral components. This could be done, for example, with preselected populations in which conscious efforts are being made to rear children in sex-typed modes that differ from the norm (see, e.g., Bem, 1983; Statham, 1986). This may help elucidate both the empirical and philosophical foundations of the androgyny construct.

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Author Notes

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Table I. Child Measure of Sex-typing: Sex Differences

	Boys (N=54)		Girls(N=56)			
Masculine stimuli	M	SD	M	SD	F	p
01. Superman	4.68	0.57	3.62	1.47	24.63	.0000
02. Male peers	3.79	1.39	3.46	1.47	1.49	.2256
03. Cement mixer	4.14	1.08	2.25	1.43	60.23	.0000
04. He-man	4.50	0.92	2.16	1.48	109.23	.0000
05. Airplane pilot	3.87	1.42	2.69	1.55	17.21	.0001
06. "Male" dress-up clothes	4.24	1.24	2.53	1.51	39.40	.0000
07. Firefighter	3.46	1.64	2.39	1.41	13.51	.0004
08. Male Cabbage Patch doll	3.55	1.55	4.55	0.95	16.94	.0001
09. Tool belt	4.35	1.11	2.82	1.41	38.72	.0000
10. Football and helmet	3.90	1.45	2.17	1.33	42.93	.0000
11. Jeep	4.42	1.09	1.91	1.26	131.43	.0000
12. Toy guns	4.22	1.25	2.16	1.34	72.47	.0000
Feminine stimuli						
01. Wonder Woman	3.59	1.58	4.35	1.10	8.28	.0049
02. Female peers	2.57	1.40	4.30	1.11	52.22	.0000
03. Brush set	1.57	0.96	4.23	1.23	154.11	.0000
04. Barbie doll	1.35	0.82	4.60	0.84	402.02	.0000
05. Nurse	1.72	1.05	4.01	1.28	113.53	.0000
06. "Female" dress-up clothes	2.27	1.52	3.53	1.50	18.41	.0000
07. Telephone operator	2.92	1.57	3.21	1.58	0.89	.3468
08. Female Cabbage Patch doll	2.24	1.63	4.71	0.84	98.97	.0000
09. Baby doll	1.59	1.10	3.83	1.33	98.31	.0000
10. Barbie doll clothes	1.83	1.35	4.46	1.19	127.84	.0000
11. Pots and pans	2.75	1.58	4.57	0.75	60.38	.0000
12. Tea set	1.75	1.30	4.37	1.07	130.90	.0000
Neutral stimuli						
01. Rakes	2.75	1.63	3.33	1.60	3.67	.0581
02. School bus	3.64	1.38	3.05	1.45	4.70	.0325
03. Abacus	3.27	1.47	3.39	1.50	0.16	.6859
04. Radio	3.51	1.70	4.69	0.87	20.40	.0000
05. Crayons	4.03	1.33	4.39	0.94	2.57	.1116
06. Telephone	2.88	1.66	4.19	1.31	20.05	.0000

Note. Data from one girl were discarded due to experimenter error. Values for means range from 1-5. F value reflects

Table I. (cont.)

effects of child's sex in a 2 x 3 ANOVA that included sex and grade as independent variables. Of the 30 stimuli, there were significant sex x grade interactions for three stimuli: He-man, jeep, and toy guns; nevertheless, simple effects analysis showed significant sex differences at each grade level for all three stimuli.

Table [illegible] Trait Measure of Sex-typing as a Function of Sex and Grade Level.

Sex of Child and Grade Level.

	Boys				Girls			
Measure	K Boys	2d Boys	4th Boys	6th Boys	K Girls	2d Girls	4th Girls	6th Girls
	M SD	M SD	M SD	M SD	M SD	M SD	M SD	M SD
Masculine Items	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feminine Items	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note: Absolute range, [illegible]. Data for one girl were discarded due to experimenter error.

Table III. Parent Questionnaire of Sex-typed Behavior
(Mother's data)

	Sex of Child				
	Boys (N=47)		Girls (N=51)		
Items	M	SD	M	SD	F*
01. Peer preference	2.31	0.59	3.60	0.66	110.29
02. Girl-type dolls	1.89	0.96	3.64	1.03	77.65
03. Boy-type dolls	3.23	1.23	1.86	0.77	38.57
04. Cosmetics	1.44	0.80	3.33	0.97	114.77
05. Imitates female TV characters	1.31	0.62	2.66	1.00	58.08
06. Imitates male TV characters	3.42	1.01	2.02	0.97	43.17
07. Plays sports with boys	3.82	0.70	2.15	0.94	93.59
08. Plays sports with girls	2.25	0.98	3.60	0.87	47.72
09. Role in fantasy	1.59	0.53	4.33	0.55	568.43
10. Girl-type games	1.97	0.79	3.98	0.84	166.92
11. Boy-type games	4.46	0.62	2.22	0.81	283.02
12. Dress-up clothes	1.59	0.71	4.54	0.61	450.86

* all ps < .001.

Note. Values from 1-5. For items 1-2, 4-5, 8-10, and 12, a higher score reflects a female-typical response, and a lower score a male-typical response. For items 3, 6-7, and 11, a higher score reflects a male-typical response, and a lower score a female-typical response. Exact wording of the questionnaire items available upon request. F value reflects effects of child's sex in a 2 x 3 ANOVA that included sex and grade as independent variables. Of the 13 items, there were significant sex x grade interactions for items 1 and 7; simple effects, however, showed significant sex differences at each grade level for both items.

Table IV. Correlations Between Child and Parent Measures of Sex-typing (Summary scores)

	MS	FS	Mother	Father
Masculine Scale--MS (Child measure)	--	.094	-.427 (.005)	-.153
Feminine Scale--FS (Child measure)	.025	--	.243 (.050)	.261 (.100)
Mother's score	.193	-.020	--	.564 (.001)
Father's score	-.088	-.029	.517 (.005)	--

Note. Girls' data above diagonal; boys' data below diagonal. Numbers in parentheses are p values, one-tailed.

Table V. Three Methods of Sex-role Classification

	Methods of Classification					
	Within-sex Median split		Between-sex Median split		Absolute Mid-point	
Category	Boys	Girls	Boys	Girls	Boys	Girls
Androgynous	13	15	1	5	5	10
Same-sex	13	12	46	48	45	44
Cross-sex	13	12	1	0	2	0
Undifferentiated	15	17	6	3	2	2
Median masculine score	4.20	2.40	3.40	3.40	3.00	3.00
Median feminine score	2.25	4.41	3.25	3.25	3.00	3.00

Note. Values in each of the four categories are number of subjects. By definition, the median masculine and feminine scores apply only to the between-sex and within-sex median split procedures.

Table VI. Summary Scale Scores for Child Measure of Sex-typing as a Function of Sex-role Classification (Within-sex Median Split)

Classification	Child Measure of Sex-typing				
	Same-sex Score		Cross-sex Score		
	M	SD	M	SD	F
Androgynous	4.72	.21	2.95	.54	306.6
Same-sex	4.64	.19	2.02	.30	596.5
Cross-sex	3.65	.49	2.88	.36	52.2
Undifferentiated	3.95	.36	1.68	.38	573.3

Note. Data collapsed across sex-of-child; response scale ranged from 1-5. F values reflect results from simple effects analysis for the sex-role category by stimulus type interaction.

Table VII. Maternal Ratings of Sex-typing and Child's Grade Level as a Function of Sex-role Classification (Within-sex Median Split)

	Maternal Rating		Grade Level	
Classification	M	SD	M	SD
Androgynous	46.92	5.13	2.03	.88
Same-sex	48.13	4.40	2.20	.64
Cross-sex	44.82	5.00	1.64	.81
Undifferentiated	46.96	3.56	2.15	.84

Note. For maternal rating, absolute range was 12-60. For grade level, dummy values were Kindergarten=1; Grade 1=2; Grade 2=3.